

REMARKS

A. 35 U.S.C. § 101

In the Office Action of August 9, 2006, claims 1-15 were rejected under 35 U.S.C. § 101 for lacking a “useful, concrete, tangible result.” Applicants traverse the rejection for several reasons. First, the rejection asserts the inventions of claims 1-15 lack a “useful, concrete, tangible result” without providing any reasons to support the assertion. Accordingly, the Office Action has failed to present a *prima facie* case supporting the rejection. Accordingly, the rejection is improper and should be withdrawn.

Assuming for argument’s sake that a *prima facie* case has been presented, the rejection is improper. Independent claim 1 recites a method for detecting the change of an angular inclination of a scanning device that includes “determining a value for a chronological progression of a change in angular inclinations of said scanning device from said detected several angular inclinations of said scanning device.” The rejection of claim 1 appears to be based in part on the assertion that the claim is not “useful.” MPEP § 2107 sets forth various procedures for determining whether or not certain claimed inventions are “useful” pursuant to 35 U.S.C. § 101. For example, a claimed invention is “useful” when the following two conditions are met:

- 1) a person of ordinary skill in the art would immediately appreciate why the invention is useful based on the characteristics of the invention (e.g., properties or applications of a product or process); and
- 2) the utility is specific, substantial, and credible. MPEP § 2107 II.

In the present case, one of ordinary skill in the art would immediately appreciate the usefulness of the process of claim 1 related to detecting the change of an angular inclination of a scanning device. For example, one of ordinary skill would immediately appreciate the usefulness

of the claimed process for detecting the change of an angular inclination of a scanning device in order to correct for alignment errors that occur during measuring operations. Accordingly, the first condition is met for the invention of claim 1.

Regarding the second condition, Applicant's Specification gives a specific application for his invention that is substantial and credible. For example, Applicant's Specification states at page 2, lines 11-14 and page 2, l. 22 – Page 3, line 9 that certain inventions, like the invention of claim 1, can be used for detecting malfunctions or erroneous measurements in a position measuring system.

The above discussion shows that Applicant's own Specification provides credible assertions that the invention of claim 1 has specific and substantial utility. Since Applicant needs "only provide one credible assertion of specific and substantial utility for each claimed invention to satisfy the utility requirement" per MPEP § 2107 II, the second condition for showing "usefulness" has been met and so usefulness of the outcome of the invention has been shown.

The second condition to be shown is that the outcome of the invention of claim 1 is concrete in that the change of an angular inclination of a scanning device detected in claim 1 can be substantially repeated given the same operating conditions. An example of such repeatability is the embodiment of the invention that is shown in FIGS. 1 and 4. If it was theoretically possible to have two identical scanning devices 2 aligned in the same manner with identical scales 1 and source and detector arrangements were identical, then the measured deviation of alignment for each scanning device 2 with respect to its corresponding scale 1 should be identical according to the present invention. Accordingly, the outcome of the invention of claim 1 is concrete.

Besides providing a useful and concrete outcome, the invention of claim 1 provides a tangible result in that one of ordinary skill would immediately appreciate the usefulness of claim

1's detection of the change of an angular inclination of a scanning device when it is used for detecting and correcting measuring errors. As mentioned in MPEP § 2106 C.2.b), the "tangible" requirement does not necessarily mean that the "claim must be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing." An invention is tangible if it results in producing a beneficial result. MPEP § 2106 C.2.b). It cannot be disputed that detecting the change of an angular inclination of a scanning device pursuant to the invention of claim 1 would produce a beneficial result.

Since it has been shown that the invention of claim 1 recites a "useful, concrete and

tangible" outcome, the rejection is improper and should be withdrawn.

Claims 2-15 depend directly or indirectly on claim 1 and so their rejections are improper for the same reasons given above as to why the rejection of claim 1 is improper.

B. Claims 16-23

Applicant notes with appreciation that claims 16-23 have been allowed. It is noted that the Office Action contains a statement of reasons for the allowance of claim 16. Applicant traverses the statement in that there are other and broader reasons for the allowance of the claims.

C. New Claim 24-28

New claims 24-26 recite generating an output signal (claim 24), storing a value (claim 25) and issuing a numerical value (claim 26) associated with "said determined value for said chronological progression of said change in angular inclinations of said scanning device" as recited in claim 1. New claim 27 recites graphically representing "said determined value for said chronological progression of said change in angular inclinations of said scanning device" as recited in claim 1. New claim 28 recites "making said determined value for said chronological

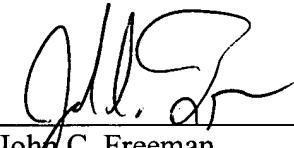
progression of said change in angular inclinations of said scanning device available to a user of said linear position measuring system." As suggested in the Office Action, the recited processes of claims 24-28 provide "concrete, tangible useful results."

Note that claims 24-28 have been added solely to provide additional coverage for the method of claim 1 and so the claims are being presented for reasons not related to patentability as defined in *Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (*en banc*), overruled in part, 535 U.S. 722 (2002).

CONCLUSION

In view of the arguments above, Applicant respectfully submits that all of the pending claims 1-28 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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